

REMARKS

This communication is in response to the Office Action issued July 16, 2002. The Examiner objected to the specification. The Examiner rejected claims 1, 2, 17-18, and 20-29 under 35 U.S.C. § 103 in view of U.S. Patent No. 5,976,034 to Kato *et al.* (Kato), either alone or in combination with U.S. Patent No. 5,688,191 to Cavallaro *et al.* (Cavallaro). The Examiner indicated that claims 4-16 and 31 were allowed. The Examiner indicated that claims 3, 19, and 30 were allowable.

Applicant-Initiated Amendments

The Applicants amended the written description at page 1 to provide updated information regarding the parent patent application. The Applicants amended the written description at pages 11, 18, and 26-28 to clarify obvious typographical errors.

Objections to the Written Description

In section 1 of the Office Action, the Examiner objected to the written description. Specifically, the Examiner objected to "3IS-C hardnesses" on page 5 line 1. The written description has been amended above as suggested by the Examiner.

In view of the foregoing, the Examiner's objection to the written description is believed to be overcome.

Claim Rejections Under 35 U.S.C. § 103

In sections 2-3 of the Office Action, the Examiner rejected claims 1, 2, 17, 18, and 20-29 under 35 U.S.C. § 103 in view of Kato, either alone or in combination with Cavallaro.

Specifically, the Examiner rejected claims 1, 2, 17, 18, and 20-28 in view of Kato and claim 29 in view of Cavallaro modified by Kato.

It is well settled that for a rejection of a claim under 35 U.S.C. §103 to be proper, each and every recitation of the claim must be present in the cited reference(s). See, for example, MPEP §2143.03. It is also well settled that for a rejection of a claim under 35 U.S.C. § 103 to be proper, there must be some suggestion or motivation to modify a reference or combine reference teachings. See, for example, MPEP §2143.01. When so modifying a reference, the proposed modification cannot render the prior art unsatisfactory for its intended purpose or change the principle of operation of a reference. See, for example, MPEP §2143.01. See, for example, MPEP §2143. For at least the reasons stated below, the Examiner's rejections of claims 1, 2, 17, 18, and 20-29 do not satisfy these burdens.

Claim 1

The Examiner and the Applicants' representatives conducted an interview in the parent application (Application No. 09/641,758, now U.S. Patent No. 6,458,046) on April 3, 2002. As discussed during that interview, thermoplastic materials and thermoset materials have distinct characteristics and one of skill in the art would not consider it obvious to replace a thermoplastic golf ball component with a thermoset golf ball component. For example, while thermoplastic materials have little or no cross-bonding between molecules, thermoset materials have strong intermolecular bonding. Thus, thermoplastics soften when heated and harden when cooled, no matter how often the process is repeated, and thermosets will not soften after being set into a permanent shape under heat and pressure. Therefore, to substitute a thermoset material for a thermoplastic material, as suggested by the Examiner, requires a complete overhaul of, and often a retooling of, the manufacturing process. For at least this

reason, one of ordinary skill in the art would not think it obvious to substitute a thermoset material for a thermoplastic one.

Therefore, claim 1 and dependent claim 2 are allowable.

Claim 17

As discussed during the aforementioned April 3, 2002 interview, the Examiner stated that MPEP § 2123 provides the authority for amending the Kato reference¹ to include a wound layer having a thickness of less than 1 mm. There it is stated “[a] reference may be relied upon for all that it would have reasonably suggested to one having ordinary skill in the art, including nonpreferred embodiments.” Using this as authorization, the Examiner cites the language:

When the thickness of the thread rubber layer is smaller than 1 mm, the thread rubber layer is too thin to exhibit sufficient impact relaxation. Therefore, shot feel is poor.

of Kato at column 5 lines 13-16 as providing motivation to modify the Kato reference to include a thread layer that is less than 1 mm in thickness. The Applicants respectfully traverse this interpretation.

MPEP § 2123 does not apply here. That provision is directed toward disclosed embodiments of the invention that satisfy the objectives of the invention, even though they may not be preferred. Here, in contrast, the Examiner has not relied upon a non-preferred embodiment of the invention. Rather, the cited patent states a value for the wound layer thickness below which the invention will not work. The Examiner has treated this disclosure of non-workability as a non-preferred embodiment. The Applicants respectfully submit that

¹ The Kato reference discussed during the April 3, 2002 interview was an international application substantially identical to the Kato reference cited in this application.

the Examiner is overreaching with respect to MPEP § 2123, and that the Examiner's overbroad reading of that section eviscerates the provisions of MPEP §§ 2141 *et seq.*

For example, the MPEP makes clear that an obviousness rejection requires 1) that the Examiner consider the totality of a reference, and 2) that any proposed modification cannot render the reference unsatisfactory for its intended purpose. See, e.g., MPEP § 2141.02 (“[a] prior art reference must be considered in its entirety”); MPEP § 2143.01 (“If proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification.”). See also, *W.L. Gore & Assocs., Inc. v. Garlock, Inc.*, 721 F.2d 1540 (Fed. Cir. 1983).

Thus, to properly modify the Kato reference to include a wound layer that is less than 1 mm in thickness, as recited by the Applicants in claim 17, the Examiner would have to both 1) provide some teaching or suggestion to provide a wound layer that is less than 1 mm in thickness, and 2) overcome the direct teaching of Kato that requires a wound layer thickness of greater than 1 mm. The Examiner appears to be stating that the language “shot feel is poor” of Kato that is cited above as the motivation that one skilled in the art would use to make the Kato golf ball with a wound layer thickness of less than 1 mm. However, those skilled in the golf ball art recognize the need to make golf balls with a good feel and to *avoid* making golf balls with a poor feel. Thus, the language cited above would deter one from modifying the Kato golf ball as suggested by the Examiner.

Therefore, claim 17 and dependent claims 18-28 are allowable.

Claim 29

Cavallaro discloses a multilayer golf ball. In one embodiment, the golf ball comprises a liquid center covered by windings. The center may be formed by injecting a thin walled sphere with a liquid such as corn syrup. The sphere is then frozen to make the center a solid mass. Windings are then wound about the center. See column 5 lines 48-54.

On page 3, the Examiner stated that “[i]t would appear that the [thin walled sphere] may be considered as an intermediate layer.” The Applicants respectfully traverse the Examiner’s statement. Thin walled spheres such as that disclosed in Cavallaro are typically used with golf balls having a liquid center to contain the liquid during the manufacturing process and are considered to be part of the core. See, for example, U.S. Patent No. 5,020,803, which is mentioned on page 4 of the written description and which was submitted by the Applicants in an Information Disclosure Statement, for a discussion of such thin walled spheres. Such thin walled spheres are not a “layer” as that term is used in the art and in this application, nor would one of ordinary skill in the art interpret such a thin walled sphere to be a layer.

The Kato reference, as discussed above, does not satisfy the shortcomings of Cavallaro.

Because the Examiner has failed to properly show all of the recitations of claim 29, the rejection of the claim is improper and must be withdrawn.

Summary

In view of the foregoing, the Examiner’s rejections under 35 U.S.C. § 103 to claims 1, 2, 17, 18, and 20-29 are believed to be overcome.

Newly Added Claims

The Applicants have added claims 32 and 33 above. Support for these claims is seen in the written description at, for example, page 8 lines 6-8. No new matter is added by the addition of these claims.

Allowable Subject Matter

On page 4 of the Office Action, the Examiner indicated that claims 3-16, 19, 30, and 31 were allowable. The Applicant appreciates the Examiner's indication of allowable subject matter.

Additional Fees

The Commissioner is hereby authorized to charge any insufficiency (including a \$110 one-month extension for response fee, a \$84 independent claim fee, and a \$36 fee for the addition of two claims) or credit any overpayment associated with this application to Swidler Berlin Shereff Friedman, LLP Deposit Account No. 19-5127 (order no. 20002.0227).

Conclusion

Claims 32 and 33 have been added. Therefore, claims 1-33 are pending in the application. In view of the foregoing, all of the Examiner's rejections to the claims are believed to be overcome. The Applicant respectfully requests reconsideration and issuance of

a Notice of Allowance for all claims. Should the Examiner feel further communication would help prosecution, he is urged to call the undersigned at the telephone number provided below.

Respectfully Submitted,



Dated: November 15, 2002

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APPENDIX A:

MARKED-UP COPY OF THE AMENDMENTS TO THE WRITTEN DESCRIPTION

Replace the paragraph beginning on page 1 line 3 with:

This application is a Continuation of U.S. Patent Application No. 09/641,758 filed August 21, 2000, now U.S. Patent No. 6,458,046, which is incorporated herein by reference in its entirety.

Replace the paragraph beginning on page 4 line 23 with:

British Patent No. GB 2337706 A to Sumitomo Rubber Industries, Ltd. discloses a multilayer wound golf ball having a dual layer center, both layer being formed from the same materials. The diameter of both center layers are limited, as are the [3IS-C] JIS-C hardnesses, and the cover is made from a thermoplastic material.

Replace the paragraph beginning on page 11 line 17 with:

As used herein, the term “coefficient of restitution” [(“COW”)] (“COR”) for golf balls is defined as the ratio of the rebound velocity to the inbound velocity when balls are fired into a rigid plate. The inbound velocity is understood to be 125 ft/s (38.1 m/s).

Replace the paragraph beginning on page 11 line 20 with:

As used herein, the term “substantially free” means less than about 5 weight percent, preferably less than about 3 weight percent, more preferably less than about [I] 1 weight percent, and most preferably less than about 0.01 weight percent.

Replace the paragraph beginning on page 18 line 23 with:

The thickness of the wound layer will typically be not more than about 8 mm, preferably from about 0.9 mm to 8 [nun] mm thick. More preferably, the thickness of the wound layer is less than 1 mm.

Replace the paragraph beginning on page 26 line 2 with:

The spin tests conducted on the golf balls of these examples, e.g., Standard Driver Spin, Average Driver Spin, 8-Iron Spin, and V2-Wedge Spin, were conducted under the conditions set forth in Table 2. In order to standardize such spin tests, the testing equipment for each club type was calibrated with a selected commercial ball to obtain a desired spin rate, as demonstrated for each test in Table 2. The Pinnacle Gold® and Tour [BalataO] Balata® golf balls used to calibrate the equipment are available from Acushnet Company of Fairhaven, Massachusetts. These setup conditions were used for testing balls prepared according to the invention and for comparative testing for each club type listed in Tables 3 & 4.

Replace Table 2 on page 26 with:

Spin test	Calibration Ball	Launch angle	Ball speed	Spin Rate
Standard Driver	Pinnacle Gold®	9.5°	160 mph	3000 rpm
Average Driver	Pinnacle Gold®	10.5°	140 mph	3600 rpm
8-iron	Tour [Balatag®] <u>Balata®</u>	18.5°	115 mph	9000 rpm
½ -Wedge	Tour [Balatag®] <u>Balata®</u>	32°	52 mph	7200 <u>rpm</u>

Replace the paragraph beginning on page 27 line 16 with:

Spin ratios of standard or average Driver spin to 8-iron or to [Y7.-wedge] $\frac{1}{2}$ -wedge spin can additionally provide comparison between the golf balls according to the invention and golf balls of different construction. For driver-to-iron or driver-to-wedge ratios, it is particularly desirable that the spin ratio be comparatively low, since lower spin is considered more desirable for a driver and higher spin is considered more desirable for irons and wedges. Several differences in driver-to-iron and driver-to-wedge spin ratios exist between the golf balls according to the invention and selected golf balls of different construction.

Replace the paragraph beginning on page 28 line 13 with:

Example 9 was a multi-layer golf ball with a polybutadiene core having a diameter of about 1.55 inches (39 [nun] mm). Disposed over the solid core was a thermoplastic inner cover layer, such that the diameter of the unfinished ball is about 1.62 inches (41 mm). An elastomeric urethane outer cover layer having a Shore D hardness of about 60 was disposed over the thermoplastic inner layer. Example 10 was also a multi-layer golf ball with a polybutadiene core having a diameter of about 1.43 inches (36 mm). Disposed over the solid core was a mantle layer composed of an [Estane®/Hytre®] Estane®/Hytre® polymer blend, such that the diameter of the unfinished ball was about 1.55 inches (39 mm). A thermoplastic cover layer having a Shore D hardness of about 70 was disposed over the mantle layer. Example 11 was a wound golf ball with a liquid-filled Pebax® center having a diameter of about 1.13 inches (29 mm). A wound layer was disposed over the center, such that the diameter

of the ball core was about 1.58 inches (40 mm). An elastomeric urethane cover layer was disposed over the wound core to form the golf ball of Example 11. Example 12 was also a wound golf ball, but with a liquid-filled rubber center having a diameter of about 1.125 inches (29 mm). A wound layer was disposed over the center such that the diameter of the ball core was about 1.6 inches (41 mm). A synthetic balata cover layer was disposed over the wound core to form the golf ball of Example 12.